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IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Xiaobao X Chen
Ioannis Kriaras
Andrea Paparella

CASE 3-2-2

Serial No. 09/512411   **Group Art Unit** 2756

Filed February 24, 2000

Examiner T. Nguyen

Title Mobile IP Supporting Quality Of Service

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Technology Center 2100

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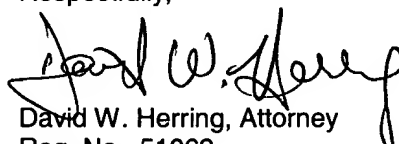## ALEXANDRIA, VA 22313-1450

SIR:

Enclosed is an Appellant's Brief Under 37 CFR 1.192 in the above-identified application.

NO ADDITIONAL FEE REQUIRED

In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 12-2325** as required to correct the error.

Respectfully,

David W. Herring, Attorney
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Date: 12/24/2003

Docket Administrator (Room 3J-219)
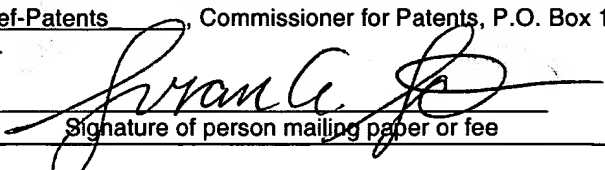**Lucent Technologies Inc.**
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF
PATENT APPEALS AND INTERFERENCES

Patent Application

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Andrea Paparella

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Technology Center 2100

Case: Chen 3-2-2

Serial No.: 09/512411   Group Art Unit: 2143

Filed: 2/24/2000

Examiner: T. Nguyen

Title: Mobile IP Supporting Quality Of Service

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ALEXANDRIA, VA 22313-1450

SIR:

APPELLANT'S BRIEF UNDER 37 C.F.R. 1.192

1. Real Party in Interest

The real party in interest is Lucent Technologies Inc.

2. Related Appeals and Interferences

Appellants are not aware of any related appeals or interferences.

3. Status of the Claims

Claims 1-19 are pending in the application. The presently pending claims are identical to those as originally filed. A copy of the claims as presently pending is attached hereto as Appendix A.

Claims 1-19 (*i.e.,* all pending claims) stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,219,694 to Lazaridis et al. ("Lazaridis"). Claims 4, 11, 15 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaridis in view of U.S. Patent No. 5,903,735 issued to Kidder et al. ("Kidder").

4. Status of Amendments

There have been no amendments filed subsequent to the final rejection dated May 5, 2003.

5. Summary of the Invention

The present invention relates to maintaining Quality of Service (QoS) standards when Internet Protocol (IP) messages are transmitted in a mobile network conforming to mobile Internet Protocol (mobile IP) standards. In particular, in a first illustrative embodiment of the present invention, these problems are solved by modifying the addresses in an IP packet instead of encapsulating the entire packet, as was done in the prior art. Thus, the problems associated with the first scenario above are avoided because the flow information is still present at a desired location within the packet and, accordingly, is available for use by a QoS-enabled router/switch. In addition, in a second illustrative embodiment of the invention, proxy servers are used at both the correspondent and the foreign network to ensure that address translation occurs to allow the QoS criteria/addresses to mirror each other. In this way, Resource Reservation Protocol (RSVP) information is available to routers/servers along the transmission path and, accordingly, QoS standards are maintained in a mobile IP network, regardless whether the mobile node is at its home address or a care-of address in a foreign network.

6. Issue presented for Appeal

The issues presented for appeal are:

a) Whether claims 1-19 are patentable over the Lazaridis under 35 U.S.C. 102(e); and

b) Whether claims 4, 11, 15 and 19 are patentable over Lazaridis in view of Kidder

under 35 U.S.C. 103(a).

7. Grouping of the Claims

There is no special grouping of claims which Appellants wish to assert in furtherance of this Appeal. Therefore, the arguments presented below will apply to all claims.

8. Arguments

35 U.S.C. §102(e) Rejection.

Each of the two Office Actions in the present application first reject claims 1-19 of the present invention under 35 U.S.C. §102(e) as being anticipated Lazaridis. Applicants respectfully assert that Lazarides does not anticipate claims 1-19 of the present invention.

In order for a claim to be anticipated by a reference under 35 U.S.C. §102, all elements of the claim must be taught or disclosed by that reference. Lazaridis discloses the prior method of encapsulating a packet in an IP network in order to forward the packet from a node in the network to a mobile device. Regarding claim 1, the Office first refers to column 8, line 66 – column 9, line 19 of Lazaridis as disclosing the present claim element of "generating, in the foreign network, a modified reply message having a source address of the mobile node's care-of address and a destination address of the correspondent node . . ." However, this cited passage does not disclose this element of claim 1. Specifically, Lazaridis in the cited passage and throughout the reference, only discloses encapsulating the IP packet in an outer envelope containing routing information necessary to route the message from a mobile address to a home address. When the packet reaches the home address, Lazaridis then teaches stripping the outer envelope away, to permit the message to be forwarded to the correspondent address.

As discussed above, this is clearly in the prior art as contemplated by the present application and is not the invention claimed in claim 1. To the contrary, the present invention explicitly claims generating a "modified reply message having a source address of the mobile node's care-of address and a destination address of the

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correspondent node." In the method disclosed by Lazaridis, the destination address of the message is the home address, not the correspondent address as is claimed in claim 1. Therefore, this cited passage of Lazaridis fails to anticipate the respective element of claim 1. As such, it is respectfully suggested that claim 1 is allowable over Lazaridis. Accordingly claims 2 – 11 are allowable as being dependent upon an allowable claim.

Regarding the rejection to claim 2, the Office relies on the passage of Lazaridis at column 1, lines 39-47 as disclosing the claim element of "creating a modified request message by replacing the destination address of the request message with the mobile node's care-of address." However, the cited passage in Lazaridis only discusses "replicating information from a host system to a user's mobile data communication device" by transferring "warehoused data items "from the host system "in response to a user request." The cited passage of the Lazaridis reference does not disclose or teach the quoted element of claim 2 and, thus, the cited passage of column 1 does not anticipate the respective element of claim 2.

The Office also relies on column 1, lines 25-38 and column 16, lines 46-65 as anticipating the element of claim 2 of "transmitting the modified request message to the foreign network, whereby the modified reply message is generated responsive to the modified request message." However, the passage of column 1 only generally discloses a method of employing a "push" paradigm for retransmitting user selected items of data. The cited passage in column 16 refers to claim 23 of that reference. That passage of claim 23 recites several steps in a method of redirecting messages. Specifically, this passage teaches 1) redirecting messages from a home address to a mobile address in response to a redirection trigger; 2) receiving the redirected messages at the mobile address; 3) generating reply messages at the mobile address; 4) transmitting reply messages from the mobile address to the home address; and 5) receiving reply messages at the home address and configuring and redirecting the reply messages. However, none of these above steps, either individually or combined, disclose the claim element of claim 2 of "transmitting the modified request message to the foreign network (defined in the present application as that network where the mobile user - normally resident at the home address - is currently located), whereby the

modified reply message is generated responsive to the modified request message."
Thus, the cited passage of column 16 does not anticipate the respective element of
claim 2.

For the foregoing reasons, claim 2 is not anticipated by Lazaridis and is
allowable for this additional reason.

Regarding the rejection to claim 3, the Office relies on column 11, lines 6-15,
column 5, lines 35-56, and column 9 lines 52-64 as disclosing the step of claim 3
wherein "the step of generating the modified reply message is carried out by proxy
device in the foreign network, the proxy device being associated with the mobile node .
. ." Applicants disagree. Column 11, lines 6-15 of Lazaridis disclose using an e-mail
subsystem that receives messages back from the mobile device having an outer
wrapper with the addressing information of the desktop system, and strip(ping) this
information away so that the message can be routed to the proper sender of the original
message . . ." The e-mail subsystem of Lazaridis is not a proxy server as contemplated
by the present invention in claim 3. Instead, as is stated at column 11, lines 18-19, the
e-mail subsystem serves only to repackage "the user-selected data items as standard
E-mail messages." Thus, the cited passage in column 11 does not anticipate the
respective claim step of claim 3.

Column 5, lines 35-56 of Lazaridis merely provides a laundry list of the
components used in the system of that reference, one of which is an e-mail subsystem.
There is no reference to a proxy server used to translate addresses as in the present
invention, nor is an equivalent to such a proxy server disclosed. For the reasons above
this passage does not anticipate the respective claim step of claim 3.

Column 9, lines 52-64 of Lazaridis states:

> "As shown in FIG. 2, desktop system 26 generates a message A that is
> transmitted to and stored at the host system 11, which is the network server
> operating the redirector program 12. The message A is for desktop system 10,
> but in this embodiment, user messages are stored at the network server 11.
> When an event occurs at the desktop system 10, an event trigger is generated
> and transmitted to the network server 11, which then determines who the trigger
> is from, whether that desktop has redirection capabilities, and if so, the server
> (operating the redirector) program uses the stored configuration information to
> redirect message A to the mobile computer associated with the user of desktop

system 10."

This is merely a method of retrieving redirected messages from a network server upon some event happening at the destination node. Network server is not serving as a proxy server but, rather, merely acts to redirect packets using the well known encapsulation technique to route packets to a redirected destination. Thus, this passage of Lazaridis does not anticipate the respective claim step of claim 3.

For the foregoing reasons, the above cited passages of Lazaridis fail to disclose the proxy devices of the respective claim element. Thus claim 3, as written, is allowable for this additional reason.

The Office does not point out with particularlity the reasons for the rejection of claim 4. However, in its rejection of claim 3, the Office cites column 13, lines 6-19 and column 10, lines 21-38 as anticipating the step of claim 3 (upon which claim 4 depends) of:

"responsive to receipt of the modified request message at the proxy device, sending a quality of service indication signal to the mobile node, whereby the modified reply message is generated responsive to receipt of a quality of service acknowledgment from the mobile node."

The above cited passage does not anticipate this step.

The cited passage in column 13 of Lazaridis discloses "generat(ing) a command message that will start redirection . . . " and if the user generates such a message, "the redirection message is composed and sent to the desktop system . . . " This passage of Lazaridis does not disclose the steps in the respective element of claim 4 of "sending a quality of service indication signal to the mobile node" in response "to receipt of a modified request message at the proxy device." Further, Lazaridis does not generate a modified reply message in response "to receipt of a quality of service acknowledgment from the mobile node." Therefore, the cited passage of column 13 does not anticipate the respective element of claim 3 (and, in turn, claim 4).

Column 10, lines 21-38 of Lazaridis also does not anticipate claim 4 as recited against claim 3. In fact, this passage of Lazaridis merely discloses the components of a data network useful in sending e-mail and other data via a network, such as the

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Internet. This passage discloses:

> "TCP/IP and E-mail subsystems (that) are examples of repackaging systems that can be used to achieve the transparency of the present invention . . ."

This passage goes on to disclose:

> "screen saver(s) and keyboard subsystems (that) are examples of event generating systems that can be configured to generated event messages or signals that trigger redirection of the user selected data items."

Applicants fail to see how the above cited passage discloses or anticipates the steps in the respective element of "sending a quality of service indication signal to the mobile node" in response "to receipt of a modified request message at the proxy device." Further, this passage of Lazaridis does not generate a modified reply message in response "to receipt of a quality of service acknowledgment from the mobile node."

For the foregoing reasons, Lazaridis fails to disclose the respective element of claim 4 in the cited passages. Therefore claim 4, as written, is allowable for this additional reason.

Regarding the rejection to claim 5, the Office cites a new reference ("Buckley") not previously cited as a grounds for rejection against applicants. The applicants are uncertain as to the intent of the Office as it is improper to combine the Buckley reference with the Lazaridis reference in a 35 U.S.C. §102 rejection. Therefore, the applicants believe one of three actions were intended with regards to this citation: 1) the Office intended to combine Lazaridis with Buckley as a 35 U.S.C. §103 rejection; 2) the Office intended to cite Buckley independently as a 35 U.S.C. §102 reference; or 3) the Office intended to cite Lazaridis, but mistakenly referred to the Buckley reference.

After a comprehensive review of both references, applicants believe that, even in light of Buckley, Lazaridis does not render obvious any element of claim 5. Applicants requested, but did not receive, clarifying remarks as to the intent of this rejection by the Office.

Applicants assume that the Office intended a 35 U.S.C. §102 rejection based on

either Buckley or Lazaridis independently because there are explicit paragraph references cited against each of the elements of claim 5, and the paragraph references appear to correspond to discrete paragraphs in either the Buckley reference or the Lazaridis reference. Thus, applicants will address in this brief, as was done in the previously filed response, such a 35 U.S.C. §102 based rejection, first assuming Buckley was the intended reference and second assuming Lazaridis was the intended reference.

i) Buckley: The Office cites column 3, lines 35-65 and column 4, lines 1-18 of Buckley as anticipating the step of claim 5 of "receiving, in the home network, the modified reply message." Applicants respectfully disagree that the cited sections of Buckley anticipate this step.

Column 3, lines 35-65 of Buckley discloses an SMTP-based message system where contact is initiated with the receiving server and, after contact is initiated, information is sent to the receiving server eliciting all the SMTP extensions supported by the receiving server. If the receiving server supports specific extensions, then certain information is transmitted in a specified order to the receiving server. At no place does the cited section of column 3 disclosed "receiving, in the home network, the modified reply message" as claimed in claim 5. Indeed, there is not even disclosed a "modified reply message" in that passage. Thus, this section of Buckley does not anticipate the respective element of claim 5.

Column 4, lines 1-18 of Buckley discloses elements and formats of messages sent between nodes of an IP packet system and the variations those elements and formats may take. Thus, this passage does not disclose nor does it anticipate the respective claim element of "receiving, in the home network, the modified reply message" as claimed in claim 5. Thus, this section of Buckley also does not anticipate the respective claim element of claim 5.

The Office next cites column 14, lines 45-63 as anticipating the element of claim 5 of "creating a further modified reply message by replacing the source address with the mobile node's home address." Applicants respectfully disagree that this cited section discloses this element. Specifically, column 14, lines 45-63 discloses reformatting a

message "into a format suitable for transfer to the receiving server." However, this passage does not disclose "replacing the source address with the mobile node's home address" as claimed in claim 5. Thus, this passage of Buckley does not anticipate this element of claim 5.

The Office next cites column 16, lines 28-37 of Buckley as disclosing the claim 5 element of "transmitting the further modified reply message." However, the cited element of Buckley only discloses a communications protocol driver that comprises "means for establishing a connection between the transferring server and the receiving server using a desired protocol" and means for "transferring a transfer-ready mail message and additional data from a sending server to a receiving server." Thus, the element of claim 5 of "transmitting the further modified reply message" is not disclosed in Buckley at the referenced lines of column 16.

ii) Lazaridis: The Office cites column 3, lines 35-65 and column 4, lines 1-18 of Lazaridis as anticipating the step of claim 5 of "receiving, in the home network, the modified reply message." Applicants respectfully disagree that the cited sections of Lazaridis anticipate this step.

Column 3, lines 35-65 of the Lazaridis reference only discloses a redirector program that can 1) determine the type of mobil data communication device and its address; 2) programming a preferred list of message types that are to be redirected, and for determining whether the mobile device can receive and process certain types of message attachments. The balance of the cited lines of column 3 discusses how various types of attachments can be handled based on the configuration of the redirector program.

Thus, the element of claim 5 of "receiving, in the home network, the modified reply message" is not disclosed in Lazaridis at the referenced lines of column 3 or elsewhere within that reference.

Column 4, lines 1-18 of Lazaridis discloses a redirecting method whereby user selected data items are wrapped in an outer envelope. This cited passage does not disclose receiving at the home network a reply message that has been modified. Instead, this passage teaches receiving an unmodified message at the home network

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and then modifying it to make it appear that the message originated from the home network. This is accomplished by wrapping the message in an outer envelope. As previously discussed, such wrapping in an outer envelope is not what is taught by the present invention and is not what is claimed in claim 5. Thus, for the foregoing reasons, the element of claim 5 of "receiving, in the home network, the modified reply message" is not disclosed in Lazaridis at the referenced lines of column 4.

Thus, the above-cited sections of the Lazaridis reference do not disclose the claim element of receiving, in the home network, the modified reply message and, therefore, these sections of Lazaridis do not anticipate claim 5.

As a result, for the foregoing reasons, regardless whether the intention of the office was to cite Buckley or Lazaridis in the rejection of claim 5, applicants respectfully suggest that claim 5 is allowable for the additional reasons cited above.

Regarding the rejection to claim 6, the Office relies on column 1, line 39 to column 2, line 17 as disclosing the invention as claimed in claim 6 "wherein the correspondent node generates the request message and receives the further modified reply message." However, the cited passage in Lazaridis only discusses "replicating information from a host system to a user's mobile data communication device" by transferring "warehoused data items" from the host system "in response to a user request." This section further describes the problems with a pull-based system, where the user must request data from a data warehouse. The only common element of the cited passage and the claim element is that a request for data is sent from one node to another. The cited passage of Lazaridis does not disclose or teach "generating a request message" or receiving a "modified reply message." Therefore, the element of claim 6 is not anticipated and, accordingly, it is respectfully suggested that claim 6 is allowable for this additional reason.

Regarding the rejection to claim 7, the Office cites column 5, lines 36-56 of Lazaridis as disclosing the element of claim 7 wherein "the correspondent node is associated with a correspondent proxy device." However, once again, this passage of Lazaridis only provides a laundry list of the components used in the system of that reference, one of which is an e-mail subsystem. There is no reference to a proxy server used to translate addresses as in the present invention, nor is an equivalent to

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such a proxy server disclosed. Accordingly, it is respectfully suggested that this element of claim 7 is not anticipated by the cited passage in column 5 of Lazaridis.

The Office next cites column 3, line 65 to column 4, line 18 and column 10, lines 21-38, and column 13, lines 6-18 as teaching the element of claim 7 wherein "the correspondent proxy device generates the request message responsive to a quality of service request from the correspondent node."

Column 3, line 65 to column 4, line 18 of Lazaridis discloses a redirecting method whereby user selected data items are wrapped in an outer envelope. Specifically, this passage teaches receiving an unmodified message at the home network and then modifying it to make it appear that the message originated from the home network. This is accomplished by wrapping the message in an outer envelope. This cited passage does not disclose a "correspondent proxy device" nor does this passage disclose generating a request message "responsive to a quality of service request from the correspondent node." Accordingly, it is respectfully suggested that the respective element of claim 7 is not anticipated by this passage.

Column 10, lines 21-38 of Lazaridis also does not anticipate the above-referenced element of claim 7. In fact, this passage of Lazaridis merely discloses the components of a data network useful in sending e-mail and other data via a network, such as the Internet. This passage discloses:

> "TCP/IP and E-mail subsystems (that) are examples of repackaging systems that can be used to achieve the transparency of the present invention . . ."

This passage goes on to disclose:

> "screen saver(s) and keyboard subsystems (that) are examples of event generating systems that can be configured to generated event messages or signals that trigger redirection of the user selected data items."

Applicants fail to see how the above cited passage discloses or anticipates the steps in the respective element of claim 7 of "correspondent proxy device" nor does this passage disclose generating a request message "responsive to a quality of service

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request from the correspondent node." Therefore, column 10, lines 21-38 of Lazaridis does not teach the respective element of claim 7 and, accordingly, it is respectfully suggested that claim 7 is not anticipated by this passage.

Column 13, lines 6-18 discloses a method whereby "a command message" is generated "that will start redirection . . . " and if the user generates such a message, "the redirection message is composed and sent to the desktop system . . . " This passage of Lazaridis does not disclose the aspects of the respective element of claim 7 of "correspondent proxy device" nor does this passage disclose generating a request message "responsive to a quality of service request from the correspondent node." Therefore, it is respectfully suggested that the cited passage of column 13 does not anticipate the respective element of claim 7.

For the foregoing reasons, claim 7 is not anticipated by the cited passages of Lazaridis. Lazaridis does not disclose, as discussed above, several of the necessary elements of claim 7. In fact, at no place in Lazaridis is a proxy device of any type disclosed, nor is "quality of service" or "quality of service request" taught or suggested in any form. Therefore, it is respectfully suggested that claim 7 is allowable for this additional reason.

Regarding the rejection to claim 8, the office cites column 16, lines 45-65 of Lazaridis as anticipating the element of claim 8 "wherein the step of generating the modified reply message (of claim 1), having a source address of the mobile node's care-of address and a destination address of the correspondent node, is carried out in the mobile node." The cited passage in column 16 Lazaridis refers to claim 23 of that reference. Lazaridis claim 23 recites several steps in a method of redirecting messages. Specifically, this passage teaches 1) redirecting messages from a home address to a mobile address in response to a redirection trigger; 2) receiving the redirected messages at the mobile address; 3) generating reply messages at the mobile address; 4) transmitting reply messages from the mobile address to the home address; and 5) receiving reply messages at the home address and configuring and redirecting the reply messages. However, none of these above steps, either individually or combined, disclose the claim element of claim 8 of generating a modified reply message at the mobile node." In fact, claim 23 of the cited passage, if anything,

explicitly calls for modifying a message at the home node, not the mobile node (see step 5, above). Thus, the cited passage of column 16 does not anticipate the respective element of claim 8. Accordingly, it is respectfully suggested that claim 8 is allowable for this additional reason.

Regarding the rejection to claim 9, the Office cites the abstract of the reference and column 9, lines 52-64 as both anticipating the step of claim 12 of "replacing the source address (the home address) with the mobile node's care-of address, thereby generating the modified reply message." However, this is not what is disclosed in the abstract, column 9, lines 52-64. Instead, both of these passages disclose a method wherein "the mobile device and the home system share a common electronic address so that messages generated at either the host system or the mobile data communication device are configured using the common electronic address." This is distinctly different than the above quoted element of claim 9 where the mobile node's care-of address (in a foreign network) replaces the source address (the home address). As is clear, the home address and the mobile address of claim 9 are not common as is disclosed in the cited passages of Lazaridis.

Thus, the element of claim 9 of "replacing the source address (the home address) with the mobile node's care-of address, thereby generating the modified reply message" is not disclosed in Lazaridis at the referenced lines of column 9. Accordingly, it is respectfully suggested that claim 9 is allowable for this additional reason.

Regarding the rejection to claim 10, the Office cites column 5, lines 36-56 as anticipating the step of claim 10 "in which the step of generating the modified reply message (of claim 1) is carried out by a proxy device in the foreign network, the proxy device being associated with the mobile node." However, as previously discussed, this passage of Lazaridis only provides a laundry list of the components used in the system of that reference, one of which is an e-mail subsystem. There is no reference to a proxy server used to translate addresses as in the present invention, nor is an equivalent to such a proxy server disclosed. Accordingly, it is respectfully suggested that this element of claim 10 is not anticipated by the cited passage in column 5 of Lazaridis. Thus, claim 10 is not anticipated by this cited passage and, accordingly, it is respectfully suggested that claim 10 is allowable for this additional reason.

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Regarding the rejection to claim 12, the Office cites column 11, lines 6-15, column 5, lines 35-56, and column 9, lines 52-64 of Lazaridis as anticipating the claim element of claim 12 of:

> "a proxy device, in the foreign network, the proxy device associated with the mobile node for generating a modified reply message having a source address of the mobile node's care-of address and a destination address of the correspondent node."

Applicants respectfully disagree. Column 11, lines 6-15 of Lazaridis discloses the use of an e-mail subsystem that receives messages back from the mobile device having an outer wrapper with the addressing information of the desktop system, and strip(ping) this information away so that the message can be routed to the proper sender of the original message . . ." The e-mail subsystem of Lazaridis is not a proxy server. Instead, as is stated at column 11, lines 18-19, the e-mail subsystem serves only to repackage "the user-selected data items as standard E-mail messages." Thus, the cited passage in column 11 does not anticipate the respective claim step of claim 12.

Column 5, lines 35-56 of Lazaridis only provides a laundry list of the components used in the system of that reference, one of which is an e-mail subsystem. There is no reference to a proxy server used to translate addresses as in the present invention, nor is an equivalent to such a proxy server disclosed. For the reasons above this passage does not anticipate the respective claim step of claim 12.

Column 9, lines 52-64 merely discloses a method of retrieving redirected messages from a network server upon some event happening at the destination node. Network server is not serving as a proxy server but, rather, merely acts to redirect packets using the well known encapsulation technique to route packets to a redirected destination. Thus, this passage of Lazaridis does not anticipate the respective claim step of claim 12.

For the foregoing reasons, the above cited passages of Lazaridis fail to disclose the proxy devices of the respective claim element, either in the cited passages or elsewhere. It is respectfully suggested therefore, that claim 12, as written, is allowable. As claims 13-19 are dependent upon claim 12, these claims are allowable as being

dependent upon an allowable claim.

Regarding the rejection to claim 13, the Office cites column 1, lines 39-67 as anticipating the element of claim 13 "wherein the proxy device is located in the mobile node." However, the cited passage in Lazaridis in column 1 only discusses "replicating information from a host system to a user's mobile data communication device" by transferring "warehoused data items "from the host system "in response to a user request." At no place within the Lazaridis reference is "a proxy device located in the mobile node" disclosed, nor is a "proxy device" disclosed at all in the Lazaridis reference. Thus, the cited passage of column 1 does not anticipate the respective element of claim 13. Accordingly, it is respectfully suggested that claim 13 is allowable for this additional reason.

Regarding the rejection to claim 14, the Office cites Figure 1 and column 4, lines 1-18 of Lazaridis as anticipating the element of claim 14 "wherein the proxy device is located outside the mobile node and coupled to the mobile node." However, the cited passage of Lazaridis only discloses a redirecting method whereby user selected data items are wrapped in an outer envelope. This cited passage does not disclose a proxy device coupled to the mobile node. Instead, this passage teaches receiving an unmodified message at the home network and then modifying it to make it appear that the message originated from the home network. This is accomplished by wrapping the message in an outer envelope. As previously discussed, such wrapping in an outer envelope is not what is taught by the present invention and is not what is claimed in claim 14. Thus, for the foregoing reasons, the element of claim 14 "wherein the proxy device is located outside the mobile node and coupled to the mobile node" is not disclosed in Lazaridis at the referenced lines of column 4.

Figure 1 of Lazaridis shows a wireless gateway connected to a mobile computer. However, as described at column 6, lines 2-6, a gateway such as gateway 20 in Figure 1 simply "forms a connection or bridge between" one network and "some other type of network. . . " At no location with the Lazaridis reference is a proxy device, such as that claimed in claim 14, disclosed.

Accordingly, for the foregoing reasons, neither Figure 1 of the Lazaridis reference, nor the passage of that reference at column 4, lines 1-18, anticipates the

respective element of claim 14. Thus, it is respectfully suggested that claim 14 is allowable for this additional reason.

Regarding the rejection to claim 16, the Office cites column 11, lines 6-15, column 5, lines 35-56, and column 9, lines 52-64 of Lazaridis as anticipating the claim element of claim 16 of:

> "a proxy device, in the foreign network, the proxy device associated with the mobile node for generating a modified reply message having a source address of the mobile node's care-of address and a destination address of the correspondent node."

For the reasons cited above with respect to the rejection of the same element language in claim 12 over the same cited passages of Lazaridis, that reference does not anticipate the respective claim element of claim 16. Accordingly, it is respectfully suggested that claim 16 is allowable for the additional reasons cited above in association with claim 12.

Regarding the rejection to claim 17, the Office cites column 1, lines 39-67 as anticipating the element of claim 17 "wherein the proxy device is located in the mobile node." For the same reasons as those discussed in regards to claim 13 above, it is respectfully suggested that claim 17 is allowable for the additional reasons cited above in association with claim 13.

Regarding the rejection to claim 18, the Office cites Figure 1 and column 4, lines 1-18 of Lazaridis as anticipating the element of claim 14 "wherein the proxy device is located outside the mobile node and coupled to the mobile node." However, for the same reasons as those discussed in regards to claim 14 above, it is respectfully suggested that claim 18 is allowable for the additional reasons cited above in association with claim 14.

While both of the the Office Actions indicated that all of claims 1-19 are rejected under 35 U.S.C. §102(e), there is no particular reference to how Lazaridis anticipates claims 4, 11, 15 or 19. However, each of these claims have elements relating to the RSVP protocol. Since Lazaridis at no point teaches or discloses that protocol or an equivalent protocol, it is respectfully suggested that claims 4, 11, 15 and 19 are not

anticipated by that reference.

Therefore, for the foregoing reasons, it is respectfully suggested that claims 1-19 are not anticipated by the Lazaridis reference under 35 U.S.C. §102(e).

35 U.S.C. §103(a) Rejection.

The Office next rejects claims 4, 11, 15 and 19 under 35 U.S.C. §103(a) as being unpatentable over Lazaridis in view of U.S. Patent No. 5,903,735 to Kidder et. al. ("Kidder"). Applicants respectfully traverse this rejection.

In order for an invention to be obvious under 35 U.S.C. §103(a), there must be some suggestion to combine or modify cited prior art references in a manner that would show or suggest the claimed invention. For the reasons discussed below, the Office fail to show that the invention as claimed is obvious in view of Lazaridis in view of Kidder.

Regarding the rejection to each of claims 4, 11, 15 and 19, the Office states that Kidder does not teach 1) that the quality of service session is an RSVP session, or 2) the request message is a Path message, or 3) that the modified reply message is a Reservation message. The Office, however, then states it would have been obvious to one of ordinary skill in the Data Processing art to combine Lazaridis and Kidder.

As previously discussed, independent claims 1 and 12 are allowable for the reasons set forth above. Therefore, claims 4, 11, 15 and 19, which either directly or indirectly depend on one of claims 1 and 12 are also allowable as being dependent upon an allowable claim. Additionally, applicants respectfully disagree that Lazaridis in light of Kidder render claims 4, 11, 15 and 19 obvious.

The Office does not point out with particularity how Lazaridis, in light of Kidder, renders the above claims obvious. In fact, the Office only points to Kidder as disclosing the RSVP reservation method and the components of such a method. The Office then states that, with the RSVP system known, the application of RSVP in a communication system would have been obvious "because it would have (sic) an efficient system that provide (sic) a remote receiver request that a certain amount of bandwidth be reserved by the server for a data stream; the server sends back a message indicating whether or not the request has been granted."

Applicants recognize that the use of an RSVP protocol is not new in data

networking. Indeed, applicants do not independently claim such a system. Rather,
claim 4 in its entirety, including all limitations of claims 1 and 2, would read as follows:

> A method of establishing a quality of service session between a
> correspondent node and a mobile node, the mobile node having a home address in
> a home network and being temporarily connected at a care-of address in a foreign
> network, the method comprising the steps of:

> 1) generating in the foreign network, a modified reply message having a
> source address of the mobile node's care-of address and a destination address
> of the correspondent node;

> 2) transmitting the modified reply message

> 3) receiving, in the home network, a request message having a source
> address of the correspondent node and a destination address of the mobile node's
> home address;

> 4) creating a modified request message by replacing the destination address
> of the request message with the mobile node's care-of address; and

> 5) transmitting the modified request message to the foreign network, whereby
> the modified reply message is generated responsive to the modified request
> message;

> 6) wherein the quality of service session is an RSVP session; the request
> message is a Path message; and the modified reply message is a Reservation
> message.

Thus, to be rendered obvious under Lazaridis in light of Kidder, there must be
some suggestion to combine Lazaridis and Kidder in a way that would show or suggest
each of the above limitations. Kidder, however, only discloses a standard use of an
RSVP protocol to transmit small, time critical messages through a network channel with
reduced latency (column 2, lines 42-44). A second device in the network may be used
to classify data (for priority determination). Kidder also teaches, as pointed to by the
Office, that a reservation protocol such as RSVP may be used to facilitate the
classification/prioritization of data in the queues of the host system and in routers.

However, Kidder does not show or suggest any of the elements 1) – 5) of claim 4
as shown above. In addition, while Kidder does show certain aspects of the RSVP
system of element 6) of the present application, Kidder does not suggest combining

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those references in a quality of service session between a correspondent node and a mobile node. As discussed above in association with the 102(e) rejection, Lazaridis does not show any of the elements of claim 4, nor is there any suggestion to modify Lazaridis in light of Kidder to show or suggest those elements. Thus, the requirements for an obviousness type rejection are not met. Accordingly, it is respectfully requested that the 103 rejection to claim 4 be removed.

Similarly, claims 11, 15 and 19 are similar to claim 4 in that they are directed to an RSVP protocol. Just like claim 4, each of claims 11, 15 and 19 is dependent upon one or more claims and, in addition to having elements relating to the RSVP protocol, each of these claims incorporates limitations from independent claims that correspond to some or all of the elements of claim 4. Accordingly, for the foregoing reasons, each of claims 11, 15 and 19 are not obvious over Lazaridis in view of Kidder. Lazaridis does not show any of the elements of claims 11, 15 and 19, nor is there any suggestion to modify Lazaridis in light of Kidder to show or suggest those elements. Thus, the requirements for an obviousness type rejection are not met. Accordingly, it is respectfully requested that the 103 rejection to claims 11, 15 and 19 be removed.
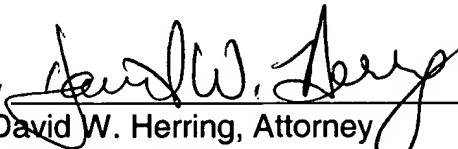
9. Conclusion

As discussed above, independent claims 1 and 12 are allowable over Lazaridis (or Buckley) and, as a result, claims 2-11 and claims 13-19 are allowable as being dependent upon an allowable base claim. Claims 2-10, 13, 14, 16 and 18 are also allowable over Lazaridis for the additional reasons set forth above. Furthermore, applicants respectfully suggest that the rejection of claims 4, 11, 15 and 19 under 35 U.S.C. §102(e) is not appropriate as the Office did not point out with any degree of particularity how Lazaridis (or Buckley) anticipate those claims. Additionally, claims 4, 11, 15 and 19 are not obvious under 35 U.S.C. §103(a) for the reasons set forth above. Accordingly, allowance of all claims remaining under consideration is respectfully requested.

Appellants respectfully request that, in view of the foregoing, the rejections of all pending claims under 35 U.S.C. 102(e) and 35 U.S.C. 103(a) be reversed.

Respectfully,

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APPENDIX A – CLAIMS

What is claimed is

1   1.   A method of establishing a quality of service session between a
2 correspondent node and a mobile node, the mobile node having a home address in a home
3 network and being temporarily connected at a care-of address in a foreign network, the
4 method comprising the steps of:

5   generating, in the foreign network, a modified reply message having a source
6 address of the mobile node's care-of address and a destination address of the
7 correspondent node; and

8   transmitting the modified reply message.

1   2.   The method of claim 1, further comprising the steps of:
2   receiving, in the home network, a request message having a source address of the
3 correspondent node and a destination address of the mobile node's home address;
4   creating a modified request message by replacing the destination address of the
5 request message with the mobile node's care-of address; and
6   transmitting the modified request message to the foreign network, whereby the
7 modified reply message is generated responsive to the modified request message.

1   3.   The method of claim 2, wherein
2   the step of generating the modified reply message is carried out by proxy device in
3 the foreign network, the proxy device being associated with the mobile node; and
4   further comprising the steps of:
5   responsive to receipt of the modified request message at the proxy device,
6 sending a quality of service indication signal to the mobile node, whereby the modified
7 reply message is generated responsive to receipt of a quality of service acknowledgment
8 from the mobile node.

1   4.   The method of claim 2, wherein
2   the quality of service session is an RSVP session;

3   the request message is a Path message; and

4   the modified reply message is a Reservation message.

1   5.   The method of claim 1, further comprising the steps of:

2   receiving, in the home network, the modified reply message;

3   creating a further modified reply message by replacing the source address with the

4   mobile node's home address; and

5   transmitting the further modified reply message.

1   6.   The method of claim 5, wherein the correspondent node generates the

2   request message and receives the further modified reply message.

1   7.   The method of claim 5, wherein:

2   the correspondent node is associated with a correspondent proxy device, whereby:

3   the correspondent proxy device generates the request message responsive

4   to a quality of service request from the correspondent node; and

5   the correspondent proxy device generates a quality of service confirmation

6   responsive to receipt of the further modified reply message.

1   8.   The method of claim 1, wherein the step of generating the modified reply

2   message is carried out in the mobile node.

1   9.   The method of claim 1, wherein the step of generating the modified reply

2   message comprises:

3   generating a reply message having a source address of the mobile node's home

4   address and a destination address of the correspondent node; and

5   replacing the source address with the mobile node's care-of address, thereby

6   generating the modified reply message.

1   10.   The method of claim 1, in which the step of generating the modified reply

2   message is carried out by a proxy device in the foreign network, the proxy device being

3   associated with the mobile node.

1   11.   The method of claim 1, wherein

2   the quality of service session is an RSVP session; and

3   the modified reply message is a Reservation message.

1   12.   A mobile IP environment capable of supporting a quality of service

2   session, comprising:

3   a correspondent node;

4   a mobile node having a home address in a home network and being temporarily

5   connected at a care-of address in a foreign network,

6   a proxy device, in the foreign network, the proxy device associated with the

7   mobile node for generating a modified reply message having a source address of the

8   mobile node's care-of address and a destination address of the correspondent node.

1   13.   The mobile IP environment of claim 12, wherein the proxy device is

2   located in the mobile node.

1   14.   The mobile IP environment of claim 12, wherein the proxy device is

2   located outside the mobile node and coupled to the mobile node.

1   15.   The mobile IP environment of claim 12, wherein:

2   the quality of service session is an RSVP session;

3   the modified reply message is a Reservation message.

1   16.   A system capable of supporting a quality of service session, comprising:

2   a correspondent node;

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3   a mobile node having a home address in a home network and being temporarily

4   connected at a care-of address in a foreign network,

5   a proxy device, in the foreign network, the proxy device associated with the

6   mobile node for generating a modified reply message having a source address of the

7   mobile node's care-of address and a destination address of the correspondent node.

1   17.   The system of claim 16, wherein the proxy device is located in the mobile

2   node.

1   18.   The system of claim 16, wherein the proxy device is located outside the

2   mobile node and coupled to the mobile node.

1   19.   The system of claim 16, wherein:

2   the quality of service session is an RSVP session;

3   the modified reply message is a Reservation message.